STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

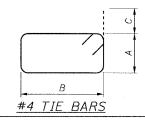
| F.A.I. RTE. | SECTION . | COUNTY | TOTAL | SHEET NO. | |
|----------------|-------------------|--------------|---------|--------------|--|
| 90/942 | 021-922PT.1-AC | COOK | 460 | 354 | |
| STA. | - | TO STA. | | | |
| FED. ROA | DIST. NO. 1 ILLIN | OIS FED. AID | PROJECT | | |

62693

| High Mast | Frontage Road or | Street or Road | Drilled | T / Pedestal | B / Pedestal | B / Drilled | | | | Reinforcer | nent Bars - | Note 1. | | Quantities | Note 2. | | | | | | | | |
|--------------------------------------------------------------------|-------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------|-----------------------|--------------------------------|---------------------------------|---------------------------------------|----------------------|-------------|----------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------|---------------------------------------|------------------------------------|----------|-------|-----|------|-------|
| Light | Street or C / D | Baseline | Shaft | = T / Parapet | = T / Drilled | Shaft | | Pedestal Size | | | | Length | Drilled Shaft | Light Tower | Pedestal | Reinforcement | | | | | | | |
| Tower Road / Identification Retaining Wall Number Structure Number | Station - Centerline of Drilled Shaft Note 5 | Centerline of Drilled Shaft | Centerline of Drilled Shaft | Centerline of Drilled Shaft | Diameter (Inches) | Elevation (Feet) | Shaft Elevation (Feet) | Elevation (Feet) Note 7 | Soil Boring Reference | (Feet - Inches) | Mark | Number | Size | (Feet - Inches) Note 8 | in Soil, 48 Inch Diameter (Foot) Note 11 | Concrete Superstructure (Cu. Yds.) | Concrete Structures (Cu. Yds.) | Bars (Pound) Notes 1 and 9 | | | | | |
| | | | | | | | | | CV101 | 16 | 10 | 26′ - 3" | | | | | | | | | | | |
| 7TEF1 | S. Wentworth Ave. | 129+84.56 | 48 | 48 21.69 | 3.50 | - 17.00 | RER-11 | 5' - 0" x 4' - 3" | CS101 | 1 | 4 | 20′ - 6" | I | | 12.1 | | | | | | | | |
| | S.N. 016 - W887, | (12.51' Lt) | | | | 17.00 | | | PV101(E) | 30 | 10 | 17' - 8" | 20.50 | 2.2 | | 2,135 | | | | | | | |
| | W965 | Fluted Parapet | | | | 1 | | | PT 101(E) | 32 | 4 | 14' - 7" | | | | 2,727 (E) | | | | | | | |
| | | | _ | | | | | | PT201(E) | 16 | 4 | 12' - 7" | | | | | | | | | | | |
| | | | | | 7.50 | -17.00 | RER-6 | 5' - 0" x 4' - 3 7/8" | CV102 | 16 | 10 | 30' - 3" 24' - 6" | | 2.3 | 9.7 | | | | | | | | |
| 7TEF2 | S. Wentworth Ave. | 125+77.50 | 48 | 22.48 | | | | | CS102 PV102(E) | 30 | 10 | 14' - 6" | 24.50 | | | 2.465 | | | | | | | |
| • | S.N. 016 - W886 | (5.19' Lt) Fluted Parapet | | | | | | | PT102(E) | 34 | 10 | 14' - 9" | | | | 2,350 (E) | | | | | | | |
| | * | | | | | | | | PT201(E) | 17 | | 12' - 7" | | | | | | | | | | | |
| Y | | | | | | | - | | CV103 | 16 | 10 | 26' - 3" | | | | | | | | | | | |
| 7TF F 3 | 7TEF3 S. Wentworth Ave. S.N. 016 - W886 | | 48 | 23.00 | - 1.50 | - 22.00 | RER-1 HML-141 | 5' - 0" x 4' - 3" | CS103 | 1 | 4 | 20' - 6" | 20.50 | 2.2 | 17.1 | 2,135 | | | | | | | |
| 11213 | | | | 25.00 | 1.50 | | | | PV103(E) | 30 | 10 | 23' - 12" | | | | | | | | | | | |
| | 3.74. 010 11000 | | | | | , | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | PT101(E) | 50 | 4 | 14' - 7" | *************************************** | | | 3,795 (E) | | | | | | |
| | | | 7 13700 7 01 0001 | | | | | | PT201(E) | 25 | 4 | 12' - 7" | | | | | | | | | | | |
| | | | | | | | | | | CV104 | 16 | 10 | 22' - 9" | | | | | | | | | | |
| 7TAB2 | S. Wells Street | | 48 | 48 22.10 | 1.00 | - 16.00 | RWE-5 | 5' - 0" | CS104 | 1 | 4 | 17' - 0" | | | | 1.045 | | | | | | | |
| | S.N. 016 - W964 | | - W964 (20.84' RT) | W964 (20.84' RT) | (20.84′ RT) | (20.84' RT) | (20.84' RT) | (20.84' RT) | | | | | - 16.00 | STB-14 | x 4' - 3" | PV104(E) | 30 | 10 | 20' - 7" | 17.00 | 2.2 | 14.4 | 1,845 |
| | | | | | | | | | PT101(E) | 42 | 4 | 14' - 7" | | | | . 3,243 (E) | | | | | | | |
| | | · | | | | | | | PT201(E) | 21 | 4 | 12' - 7" | | | | | | | | | | | |
| | | | | | | | | | CV105 | 16 | 10 | 25' - 9" | | | | | | | | | | | |
| 7TAB3 | S. Wells Street | 016 - W903 (6.71' RT) | - W903 (6.71' RT) | | 48 21.69 | 4.00 | - 16.00 | RWEb-9 | 5' - 0" x 4' - 3". | CS105 | 11 | 4 | | 20' - 0" 17' - 2" 20.00 | 2.2 | 11.7 | 2,093 2,690 (E) | | | | | | |
| | S.N. 016 - W903 | | | | | | | | | PV105(E) | 30 | 10 | | | | 11.7 | | | | | | | |
| | | Fluted Parapet | | | | | | | PT101(E) PT201(E) | 34 17 | 4 | 14' - 7" 12' - 7" | | | | 2,030 (L) | | | | | | | |
| | | | | | | | | | CV106 | 16 | 10 | 22' - 3" | | | | | | | | | | | |
| 75000 | 7SCD2 S. Wells Street Fluted Knee Wali | 513+00.00 (6.69′ RT) | | 48 17.27 | 13.27 | -3.23 | HML - 132 | 4' - 0" x 4' - 6" | | CS106 | 10, | 10 | 16' - 6" | NAMES OF THE PARTY | | | | | | | | | |
| ISOUZ | | | | | | | | | PV106(E) | 12 | | 3' - 6" | 16.50 | | 2.7 | 1,700 | | | | | | | |
| | Tidled Kliee Wall | Fluted Parapet | | | | | | 1 ^ 7 | PT 103(E) | <u> </u> | | 16' - 3" | | | | 117 (E) | | | | | | | |
| | | . Idiod i di apoi | | | | | | | 11103(2) | ļ | | 1 3 | | | | | | | | | | | |

| BILL OF MATERIAL | | | | | | | |
|------------------------------------------|---------|----------|--|--|--|--|--|
| | UNIT | QUANTITY | | | | | |
| DRILLED SHAFT IN SOIL, 48 INCH (Note 11) | FOOT | 119 | | | | | |
| CONCRETE SUPERSTRUCTURE | CU. YD. | 11.1 | | | | | |
| CONCRETE STRUCTURES | CU. YD. | 67.7 | | | | | |
| REINFORCEMENT BARS | POUND | 12,370 | | | | | |
| REINFORCEMENT BARS, EPOXY COATED | POUND | 14,920 | | | | | |
| RUSTICATION FINISH | SO. FT. | 53 | | | | | |

| REINFORCEMENT BAR BENDING DETAILS | | | | | | | |
|-----------------------------------|------|------|-------|-------|------|-----|---------|
| BAR | TYPE | SIZE | Α | В | С | D | SHAPE |
| PT 101(E) | TIE | #4 | 3'-3" | 3′-8" | 412" | - | |
| PT 102(E) | TIE | #4 | 3'-3" | 3'-9" | 412" | - | <u></u> |
| PT 103(E) | TIE | #4 | 4'-1" | 3′-8" | 412" | No. | |
| PT20KE) | TIE | #4 | 4'-6" | 1'-5" | 412" | | |



NOTES:

- 1. Reinforcement Bars With Suffix (E) After Each Bar Callout Are Epoxy Coated.
- Quantities for Structure Excavation, Protective Coat, Geocomposite Wall Drain, Pipe Underdrain, 6" Granular Backfill, And Chain Link Fence, Special And Chain Link Gate Assembly, Special Are Included In The Bill Of Material For Individual Retaining Walls.
- 3. See Sheets LTF2, LTF3, LTF4 And LTF5 For Details Of High Mast Light Tower Retaining Wall Foundation, 7TEF1, 7TEF3, 7TAB2 And 7TAB3.
- See Sheets LTF6, LTF7 And LTF8 For Details Of High Mast Light Tower -Retaining Wall Foundation, 7TEF2.
 See Sheets LTF9, LTF10 And LTF11 For Details Of High Mast Light Tower Knee Wall Foundation, 7SCD2.
- 5. () Indicates Offset From S. Wentworth Ave. Or S. Wells St. Baselines To Center Of Drilled Shaft At Station Indicated.
- 6. Bottom Of Temporary Steel Casing Shall Extend Two Feet (2'-0") Into Clay. The Contractor Shall Extend Temporary Casing Into Sufficiently Stable Soils To Prevent Caving Of Soils Into The Excavation. It Shall Be The Contractor's Responsibilty To Prevent Caving Or Movement Of The Surrounding Soils And To Provide A Dry And Clean Shaft For Inspection And Placement Of Reinforcement And Concrete. When Casing Is To Be Removed During Concrete Placement, The Contractor Shall Exercise Extra Care To Prevent Any Earth From Coming In From The Sides And Mixing With The Concrete Or Reducing The Diameter Of The Drilled Shaft And To Ensure That The Concrete Will Be Pressed Tightly Against The Earth. Extreme Care Shall Be Used To Pull The Casing In A Truly Vertical Direction In Order To Prevent Any Movement Of The Reinforcement Steel And To Prevent Any Soil Materials Coming In From The Side Of The Shaft And Mixing With The Concrete.
- 7. B/Drilled Shaft Elevations Shall Not Be Raised or Lowered More Than 1'-0" Unless Approved By The Engineer.
- 8. CS Bar Length Is Height Of Spiral.
- 9. Weight Includes Four (4) #5 Spacer Bars for Each Spiral.
- 10. Furnishing And Installing Backer Rod And Non-Staining Sealant Is Included With The Cost Of Concrete Superstructures.

- 11. In Constructing The Drilled Shafts, The Contractor May
 Encounter Pavements, Fill, Foundations, Abandoned Utilities,
 Boulders And Other Obstructions. No Separate Payment
 Will Be Made For Removal Of Any Such Obstructions And The Cost
 For Removing Any Such Obstructions Shall Be Included In The
 Contract Unit Price For Drilled Shafts.
- 12. For Anchor Rod Assembly, Ground Rod, And Raceway/Conduits, Location And Details See High Mast Light Tower Foundation Details In Roadway Lighting Plans. Costs Of Anchor Rod Assembly, Ground Rods, And Raceway/Conduits Shall Be Incidental To The Cost Per Foot For Drilled Shaft In Soil, 48 Inch Diameter, Furnishing And Placing.

The Contractor Shall Spread 4 Raceways To Allow For A $1_2^{\rm l}{}^{\rm l}$ Min. Spacing Between Them For A Full Concrete Embedment.

13. Epoxy-coating Must Be Removed From Reinforcement Bars, Epoxy Coated Prior to Exothermic Welding The Grounding System. After Exothermic Welding Of Grounding System Connections To Epoxy-coated Reinforcement Bars All Damaged Areas Of Epoxy-coating Shall Be Repaired As Described In Article 508.05 Of The Standard Specifications.

SHEET LTF1 of 11

| REVISIONS | ILLINOIS DEPARTMENT OF TRANSPORTATION |
|-----------|--------------------------------------------------------------------------------------------------------------|
| NAME DATE | F.A.I. 90/94 (DAN RYAN EXPRESSWAY) PEDESTAL AND DRILLED SHAFT SCHEDULE WEST 63RD STREET TO WEST 59TH STREET |
| | HIGH MAST LIGHT TOWER FOUNDATIONS COOK COUNTY |
| | <u>-</u> - |

SCALE: None
DATE: October 29, 2004

DRAWN BY: CD CHECKED BY: ML

CIE ENGINEERS

CONSOER TOWNSEND ENWRODYNE ENGINEERS, INC.
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CHICAGO LIUROIS 6666-522, PHONE (3(2) 938-0300